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	RMATION I			FILING DATE:	August 22, 2001	CONFIRMATION NO.:	8935
	EMENT BY			APPLICANT:	Lieber, et al.		
Sheet	1	of	4	GROUP ART UNIT:	2811	EXAMINER:	Sara W. Crane

U.S. PATENT DOCUMENTS

Examiner's	Cite	U.S. Patent Document		Name of Patentee or Applicant of Cited	Date of Publication or Issue of Cited Document
Initials #	No.	Number	Kind Code	Document	MM/DD/YYYY
SC		5023139		Birnboim et al.	06/11/1991
		5607876		Biegelsen et al.	03/04/1997
		5824470		Baldeschwieler et al.	10/20/1998
		5908692		Hamers et al.	06/01/1999
		5916642		Chang	06/29/1999
		6187165	B1	Chien et al.	02/13/2001
		6231744	B1	Ying et al.	05/15/2001
		6270074	Bl	Rasmussen et al.	08/07/2001
		6278231	B1	Iwasaki et al.	08/21/2001
		6287765	B1	Cubicciotti	09/11/2001
		6340822	B1	Brown et al.	01/22/2002
		6359288	Bl	Ying et al.	03/19/2002
		6437329	B1	Yedur et al.	08/20/2002
		6465132	B 1	Jin '	10/15/2002
		6538367	B1	Choi et al.	03/25/2003
		6559468	B 1	Keukes et al.	05/06/2003
		6586095	B2	Wang et al.	07/01/2003
		6628053	B1	Den et al.	09/30/2003
		6741019	BI	Filas et al.	05/25/2004
		6743408	B2	Lieber	06/01/2004
		6756025	B2	Colbert et al.	06/29/2004
		6756795	B2	Hunt et al.	06/29/2004
		6762056	B2	Imamiya	07/06/2004
		6803840	B2	Hunt et al.	10/12/2004
		6808746	Bl	Dai et al.	10/26/2004
	I	6815706	B2	Li et al.	11/09/2004
		6846565	B2	Korgel et al.	01/25/2005
		6882767	B2	Yang et al.	04/19/2005
		6902720	B2	McGimpsey	06/07/2005
		6946197	B2	Yadav et al.	09/20/2005
		6958216	B2	Kelley et al.	10/25/2005
		6962823	B2	Empedocles et al.	11/08/2005
		6974706	B1	Melker et al.	12/13/2005
		6996147	B2	Majumdar et al.	02/07/2006
		2002/0040805	A1	Swager	04/11/2002
		2002/0055239	A1	Tuominen et al.	05/09/2002
V		2002/0086335	A1	Massey et al.	07/04/2002
SC		2002/0158342	A1	Tuominen et al.	10/31/2002

FORM PTO-1449/A and B (Modified) OCI. 10 7005

EULING DATE: August 22, 2001 CONFIRMATION NO.: 8935

STATEMENT BY APPLICANT: Lieber, et al.

Sheet 2 of 4 GROUP ART UNIT: 2811 EXAMINER: Sara W. Crane

SC	2002/0187504	Al	Reich et al.	12/12/2002
	2003/0001091	Al	Nakayama et al.	01/02/2003
	2003/0003300	Al	Korgel et al.	01/02/2003
	2003/0032892	Al	Erlach et al.	02/13/2003
	2003/0048619	A1	Kaler et al.	03/13/2003
	2003/0073071	A1	Fritz et al.	04/17/2003
	2003/0098488	A1	O'Keeffe et al.	05/29/2003
	2003/0113940	Al	Erlanger et al.	06/19/2003
•	2003/0113713	A1	Glezer, et al.	06/19/2003
	2003/0121764	Al	Yang et al.	07/03/2003
•	2003/0124717	Al	Awano et al.	07/03/2003
	2003/0134267	Al	Kang et al.	07/17/2003
	2003/0134433	Al	Gabriel et al.	07/17/2003
	2003/0135971	A1	Liberman et al.	07/24/2003
	2003/0189202	Al	Li et al.	10/09/2003
	2003/0197456	Al	Den et al.	10/23/2003
	2004/0067530	A1	Gruner	04/08/2004
<u> </u>	2004/0157414	A1	Gole et al.	08/12/2004
	2005/0037374	A1	Melker et al.	02/17/2005
	2005/0064185	A1	Buretea et al.	03/24/2005
	2005/0064731	A1	Park et al.	03/24/2005
	2005/0066883	A1	Dubrow et al.	03/31/2005
	2005/0072213	A1	Besnard et al.	04/07/2005
	2005/0079533	A1	Samuelson et al.	04/14/2005
	2005/0079659	A1	Duan et al.	04/14/2005
	2005/0100960	A1	Dai et al.	05/12/2005
	2005/0101026	Al	Sailor et al.	05/12/2005
	2005/0181587	ÀÌ	Duan et al.	08/18/2005
. 1	2005/0253137	Äl	Whang et al.	11/17/2005
	2005/0287717	Al	Heald et al.	12/29/2005
$ \langle \rangle $	2006/0008942	A1	Romano et al.	01/12/2006
\mathbf{V}	2006/0009003	Al	Romano et al.	01/12/2006
SC .	2006/0019472	Al	Pan et al.	01/26/2006

FOREIGN PATENT DOCUMENTS

Examiner's Initials #	Cite No. Office/ Country Number Code	Foreign Patent Document		ment	Name of Patentee or Applicant of Cited	Date of	- ·
			Document Document	Publication of Cited Document MM/DD/YYYY	nt (Y/N)		
SC		JP	2000-31462	Α	Toru et al.	01/26/2000	Abstract
		wo	91/06036	A1	Research Corp. Technologies, Inc.	05/02/1991	
		wo	98/48456	A1	Massachusetts Institute of Technology	10/29/1998	
∇		wo	99/63347	A2	Jones	12/09/1999	
SC		wo	02/086480	A1	Stanford University	10/31/2002	

FORM PTO-1449/A and B (Mod fied) OCT 1 0 2006 FILING DATE: August 22, 2001 CONFIRMATION NO.: 8935

STATEMENT BY APPLICATION ENTRY APPLICATION NO.: B935

Sheet 3 of 4 GROUP ART UNIT: 2811 EXAMINER: Sara W. Crane

SC	wo	02/31183	Al	Bioforce Laboratory, Inc.	04/18/2002
	WO	03/016901	Al	Samsung Electronics Co., Ltd.	02/27/2003
	wo	03/054931	Al	Virtanen	07/03/2003
	wo	05/093831	A1	President and Fellows of Harvard College	10/06/2005
SC	wo	05/114282	A2	The Regents of the Univ. of California	12/01/2005

OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials #	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
SC		AGARWAL, R. et al., "Lasing in Single Cadmium Sulfide Nanowire Optical Cavities," Nano Letters, 2005, 5(5):917-920	
		CHEN, R.J. et al., "Noncovalent functionalization of carbon nanotubes for highly specific electronic biosensors," <i>PNAS</i> , April 2003, 100(9):4984-4989	
		CHOI, K.J. et al., "Enhancement of Ferroelectricity in Strained BaTiO ₃ Thin Films," Science, Nov. 2004, 306:1005-1009	
		DUAN, X. et al., "Synthesis and optical properties of gallium arsenide nanowires," Applied Physics Letters, Feb. 2000, 76(9):1116-1118	
		FRIEDMAN, R.S. et al., "High-speed integrated nanowire circuits," Nature, April 2005, 434:1085	
		GRADECAK, S. et al., "GaN nanowire lasers with now lasing thresholds," <i>Applied Physics Letters</i> , 2005, 87:173111-1-173111-3	
		HAHM, J. et al., "Direct Ultrasensitive Electrical Detection of DNA and DNA Sequence Variations Using Nanowire Nanosensors," <i>Nano Letters</i> , 2004, 4(1):51-54	
		HEATH, J.R. et al., "A liquid solution synthesis of single crystal germanium quantum wires," Chemical Physics Letters, June 1993, 208(3,4):263-268	
		HIRUMA, K. et al., "GaAs fr e-standing quantum-siz wires," J. Appl. Phys., 1993, 74(5):3162-3171	•
		HU, S.Y. et al., "Serpentine Superlattice Nanowire-Array Lasers," <i>IEEE Journal of Quantum Electronics</i> , August 1995, 31(8):1380-1388	
		LAW, M. et al., "Nanoribbon Waveguides for Subwavelength Photonics Integration," Science, August 2004, 305:1269-1273	
		LEFF, D.V. et al., "Thermodynamic Control of Gold Nanocrystal Size: Experiment and Theory," J. Phys. Chem., 1995, 99:7036-7041	
		LEI, B. et al., "Nanowire transistors with ferroelectric gate dielectrics: Enhanced performance and memory effects," Applied Physics Letters, May 2004, 84(22):4553-4555	
		LIEBER, C., "Nanowire Superlattices," Nano Letters, February 2002, 2(2):81-82	
		MCALPINE, M.C. et al., "High-Performance Nanowire Electronics and Photonics and Nanoscale Patterning on Flexible Plastic Substrates," Proceedings of the IEEE, July 2005, 93(7):1357-1363	
		MENON, V.P. et al., "Fabrication and Evaluation of Nanoelectrode Ensembles," Anal. Chem., July 1995, 67(13):1920-1928	
	1	PATOLSKY, F. et al., "Nanowire nanosensors," Materials Today, April 2005, 8:20-28	
		PATOLSKY, F. et al., "Electrical detection of single viruses," PNAS, Sept. 2004, 101(39):14017-14022	
1/		PAVESI, L., et al., "Optical gain in silicon nanocrystals," Nature, Vol. 408, pp. 440-444 (2000).	
SC		QI, P. et al., "Toward Large Arrays of Multiplex Functionalized Carbon Nanotube Sensors for Highly Sensitive and Selective Molecular Detection," Nano Letters, 2003, 3(3):347-351	

/Sara Crane/

01/05/2007

· ,	 		OIPE				
FORM PTO-1449/A and B (Modified) OCT 1 0) OCT + 0 000	SPPLICATION NO.:	09/935,776	ATTY. DOCKET NO.:	H0498.70154US00
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				GROUP ART UNIT:	2811	EXAMINER:	Sara W. Crane
Sheet	4	of	4	OROGI ART OWN.		DAGMINDK.	Gara W. Claric

OTHER ART — NON PATENT LITERATURE DOCUMENTS

	TONG I et al "Suburavalenath diameter ail	lica wires for low-loss optical wave guiding," Nature,	
SC	Dec. 2003, 426:816-819	ica wires for low-loss optical wave guiding, wature,	
	URBAN, J. et al., "Single-Crystalline Barium	Titanate Nanowires," Adv. Mater., 2003, 15(5):423-	
	426		
	VOSSMEYER, T. et al., "Combinatorial appr	oaches toward patterning nanocrystals," Journal of	
	Applied Physics, 1998, 84(7):3664-3670		
		-molecule-protein interactions by using nanowire	
	nanosensors," PNAS, 2005, 102(9):3208-3212	2	
	WHANG, D. et al., "Large-Scale Hierarchical	Organization of Nanowire Arrays for Integrated	
•	Nanosystems," Nano Letters, 2003, 3(9)"1255		
	WHANG, D. et al., "Nanolithography Using I	Hierarchically Assembled Nanowire Masks," Nano	
<u> </u> -	Letters, 2003, 3(7):951-954		
	WU, Y. et al., "Controlled Growth and Structi	ures of Molecular-Scale Silicon Nanowires," Nano	
	Letters, 2004, 4(3):433-436		
	WU, Y. et al., "Single-Crystal metallic nanow	rires and metal/semiconductor nanowire	
	heterostructures," Nature, 2004, 430:61-65		
	XIANG, J., et al., "Ge/Si Nanowire Heterostro	uctures as High-Performance Field-Effect	
	Transistors," Nature, 2006, 441, 489-493		
·	YANG, P., "Wires on water," Nature, 2003, 4		
		of High-Performance n-Type Silicon Nanowire	
	Transistors," Advanced Materials, 2004, 16(2		
		ection of cancer markers with nanowire sensor arrays,"	
	Nature Biotechnology, 2005, 23(10):1294-130		
		um Nitride Nanowires for Electronic and Photonic	
	Nanodevices," Nano Letters, 2003, 3(3):343-3		
		ransport in Molecular-Scale Silicon Nanowires,"	
	Nano Letters, 2005, 5(6):1143-1146		
	Office Action dated 11/29/2005 in U.S.S.N. 1		
	Office Action dated 02/23/2006 in U.S.S.N. 1		
	Office Action dated 04/07/2006 in U.S.S.N. 1		
	International Search Report from Int. Apl. No.		
		. PCT/US2005/004459, filed February 14, 2005	
	International Search Report from Int. Apl. No.	. PCT/US2005/026759, filed July 28, 2005	
	Written Opinion from Int. Apl. No. PCT/US20	005/004459, filed February 14, 2005	
W	005/026759, filed July 28, 2005		
	Written Opinion from Int. Apl. No. PCT/US20	005/020974, filed June 15, 2005	
SC	International Search Report from Int. Apl. No.		
EXAMINER:		DATE CONSIDERED:	
	/Sara Crane/	01/05/2007	
		<u> </u>	

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^{*}a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. ___, filed ___, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).